



CLEAN ENERGY
IMPLEMENTATION PLAN

PUBLIC UTILITY DISTRICT NO. 1 OF DOUGLAS COUNTY

12/20/2021

FINAL

INTRODUCTION

This planning document presents a proposed 2022-25 Clean Energy Implementation Plan (CEIP) for Douglas County PUD (DCPUD) as required by the Washington Clean Energy Transformation Act (CETA). This report describes the development and results of the CEIP prepared for and with close collaboration from Douglas PUD by Empower Dataworks. CETA was signed into law in 2019 and mandates new clean energy and planning and reporting requirements on Washington electric utilities. This is the first CEIP required under Washington’s new CETA.

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RENEWABLES

CETA requires utilities to propose interim targets for meeting its standards for greenhouse gas neutral electricity in 2030 and clean energy in 2045.

The CEIP must establish an interim target for the percentage of retail load to be served using renewable and non-emitting resources during the period covered by the CEIP (2022-25). The interim target must demonstrate progress toward meeting the standards under RCW 19.405.040(1) and 19.405.050(1), if the utility is not already meeting the relevant standard.

For small utilities, the Dept. of Commerce is allowing a single renewables target over the entire four year compliance period.

RENEWABLE TARGETS

The 2022-25 renewable targets for Douglas PUD are driven primarily by the 2019 update to its Integrated Resource Plan.

Douglas PUD's share of the Wells Project, together with its portion of the output from the Rocky Reach Hydroelectric Project, has historically been sufficient to meet the needs of approximately 17,000 electric customers

in Douglas County. The Wells Project has become a model for providing clean, efficient and reliable hydroelectric power.

Douglas PUD has access to 85% of the output of the Wells project, though the actual percentage is dictated by several contracts. The share of Okanogan PUD's interest in the project increases with Okanogan PUD's load, up to a maximum of 30 percent through 2068. The Colville Confederated Tribes have a perpetual 5.5% share. Other contractual obligations exist through 2028, providing output to Puget Sound Energy, Avista Corporation and Portland General Electric.

Douglas PUD proposes the following targets for its renewable energy resources over 2022-25:

For the four-year compliance period, it is estimated that Douglas PUD will meet 63% of its load (95 MWh) through renewable hydroelectric power, 2% through wind generation, and the balance largely from unspecified market sources. While the District will not meet the 80% threshold during the initial four-year compliance period, it is positioned to meet or exceed this standard by 2030. The figure below shows the District's expected resource mix post 2028. Future plans for exchanges or wholesale purchases will be assessed in light of CETA's 2030 and 2045 targets, and contingent upon county growth.

ENERGY EFFICIENCY

Pursuant to WAC 194-40-330 (1)(ii):

Any utility that is not a qualifying utility under RCW 19.285 must establish the amount of energy efficiency and conservation that is available using either of the following methods:

(A) Use the conservation methodology established in RCW 19.285.040(1) and the rules implementing that subsection; or

(B) Establish the reasonable utility-level proportion of a conservation potential assessment prepared at a regional or multi-utility level using a methodology that:

(I) Evaluates resource alternatives on a total resource cost basis, in which all costs and all benefits of conservation measures are included regardless of who pays the costs or receives the benefits; and

(II) Includes the social cost of greenhouse gas emissions as specified in WAC 194-40-110.

Methodology: For the purposes of this plan, Douglas PUD has calculated the utility-level proportion of the Northwest Power and Conservation Council's 2021 plan. This was implemented by updating the Council's 6th plan target calculator with (i) new conservation potential input for 2022-2041 from the 2021 plan and (ii) retail electric data

for Northwestern utilities in 2019-20 from the Energy Information Administration.

Douglas PUD has no prior experience implementing energy efficiency programs. Moreover, the extremely low rates (approximately \$0.024/kWh) serve as a customer disincentive to participation in energy efficiency programs, as most energy efficiency measures will not be cost-effective from the customer perspective. Perhaps more importantly, a significant portion of the District's load is comprised of traditional data and crypto-currency loads, for which little to no conservation can be achieved. Therefore, the raw proportional energy efficiency potential was adjusted as follows:

- Zero conservation potential was assumed in 2022, since Douglas PUD will be in the process of setting up (i) internal processes, (ii) technical infrastructure, (iii) budgeting, and (iv) hiring or third-party procurement processes for program implementation.
- The Northwest Council's conservation potential estimates assume that program administrative expenses are 20% of incremental measure cost, which is typical for well-established programs in larger service territories. We assumed higher marketing and outreach expenses that will be required to overcome the low-rate barrier to program participation. In addition, Douglas PUD will need to build awareness about these programs from scratch and acquire the technical

infrastructure and tools that are necessary to effectively implement energy efficiency programs.

- Incremental capital costs for many measures will be higher in Douglas County than the regional averages assumed by the NW Council due to the difficulty of access in remote parts of the County and the fact that there are not many options for weatherization, HVAC and other contractors, resulting in higher prices. We adjusted the cost-effectiveness by adding 10% to the assumed incremental capital costs to account for this.
- Estimates of actual administrative expenses and measure capital costs should be adjusted as Douglas PUD gathers data and gains more experience with energy efficiency program implementation.

- The net effect of these adjustments is to reduce Douglas PUD's achievable conservation potential by 14% compared to the raw proportional share of the NW Council's conservation potential for 2023-2025 (with no reasonable achievable conservation potential in 2022).
- Additionally, about 40% of Douglas PUD's load is comprised of traditional data loads and block-chain and low tier data loads for which conservation is impractical. This composition is unusual. As such, an additional 15% reduction was taken from the calculation above, providing the following conclusions in the table below.

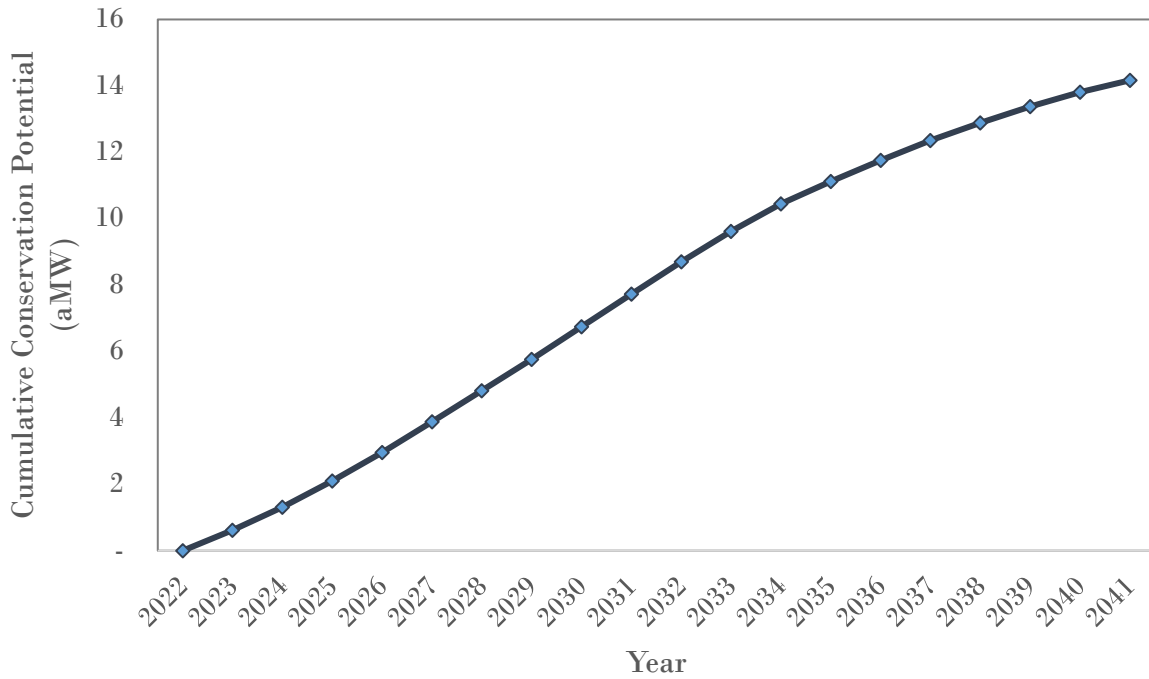
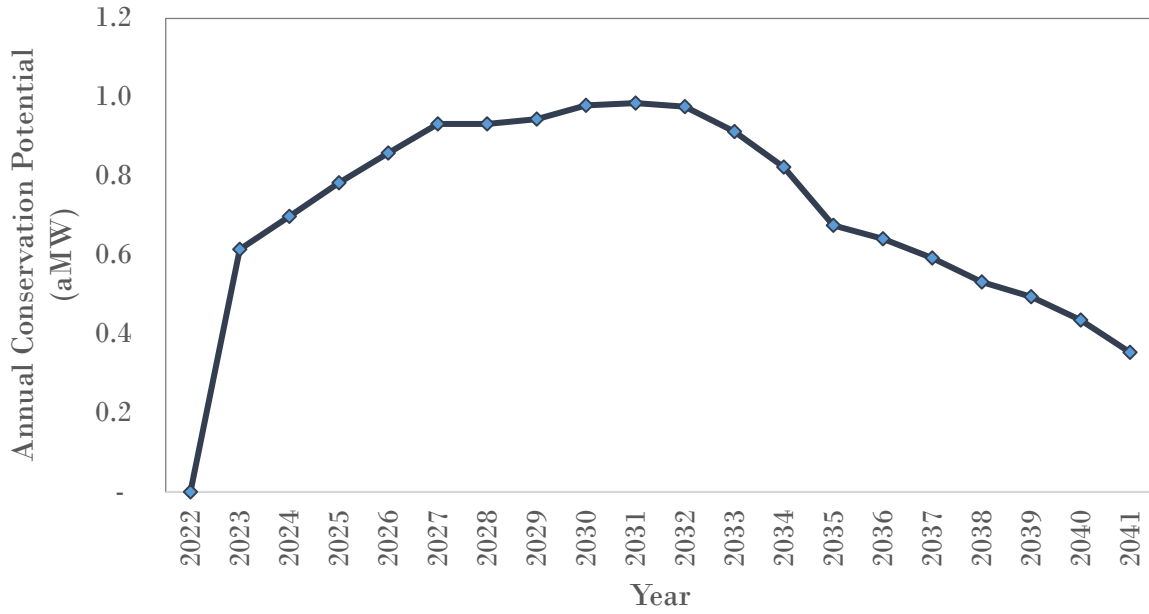
ENERGY EFFICIENCY TARGETS

Year	Energy Efficiency Potential	
	aMW	MWh
2022	0	0
2023	0.52	4,578
2024	0.60	5,200
2025	0.66	5,830
4-year compliance period total	1.78	15,608

The full 20-year projections for Douglas PUD based on the regional conservation potential assessment is shown below. The NW Council expects regional potential to peak between 2029 and 2032, then gradually decline, as the effects of utility programs and codes and standards reduce economically achievable conservation opportunities.

The cumulative conservation potential, shown in the figure on the right assumes the useful life of energy efficiency improvements average 20 years and estimates that energy efficiency can provide up to 14 aMW which can contribute to improving Douglas PUD’s net resource position.

Figure 2. Douglas PUD's annual (top) and cumulative (bottom) conservation potential.



DEMAND RESPONSE

Pursuant to WAC 194-40-330 (2):

(a) Each utility must assess the amount of demand response resource that is cost-effective, reliable, and feasible.

(b) The demand response target for any compliance period must be sufficient to meet the utility's obligation under RCW 19.405.040(6) and must be consistent with the utility's resource plans and any distributed energy resource plan adopted under RCW 19.280.100.

DEMAND RESPONSE TARGETS

The following table discusses some of the potential demand response measures in the NW Council's 2021 plan, along with their applicability for Douglas PUD.

Douglas PUD will continue to evaluate potential demand response opportunities during this initial compliance period. Since we cannot isolate specific cost-effective, reliable and feasible demand response targets at this time, no target will be established during this first compliance period.

Demand Response Type	Applicability to Douglas PUD
Direct Load Control	Douglas PUD does not currently operate any customer energy efficiency programs, so there is no channel to distribute load control devices to customers. Dedicated demand response programs would be cost-prohibitive.
Demand Curtailment for Large Commercial and Industrial customers	The vast majority of industrial load is concentrated in data centers and block-chain and low tier data facilities. The feasibility and cost-effectiveness of this option is unknown.
Time-of-use rates / Critical Peak Pricing	Douglas PUD has no advanced metering infrastructure that would enable price-based demand response. There is insufficient data showing its effectiveness in peak shaving.

VULNERABLE AND HIGHLY IMPACTED COMMUNITIES

Pursuant to WAC 194-40-200 (4), the CEIP should:

(a) Identify each highly impacted community, as defined in RCW 19.405.020(23), and its designation as either:

(i) A community designated by the department of health based on cumulative impact analyses; or

(ii) A community located in census tracts that are at least partially on Indian country.

(b) Identify vulnerable populations based on the adverse socioeconomic factors and sensitivity factors developed through a public process established by the utility and describe and explain any changes from the utility's previous CEIP, if any;

(c) Report the forecasted distribution of energy and non-energy costs and benefits for the utility's portfolio of specific actions, including impacts resulting from achievement of the specific targets established under subsection (3) of this section. The report must:

(i) Include one or more indicators applicable to the utility's service area and associated with energy benefits, non-energy benefits, reduction of

burdens, public health, environment, reduction in cost, energy security, or resiliency developed through a public process as part of the utility's long-term planning, for the provisions in RCW 19.405.040(8);

(ii) Identify the expected effect of specific actions on highly impacted communities and vulnerable populations and the general location, if applicable, timing, and estimated cost of each specific action. If applicable, identify whether any resource will be located in highly impacted communities or will be governed by, serve, or otherwise benefit highly impacted communities or vulnerable populations in part or in whole; and

(iii) Describe how the specific actions in the CEIP are consistent with, and informed by, the utility's longer-term strategies based on the analysis in RCW 19.280.030 (1)(k) and clean energy action plan in RCW 19.280.030 (1)(l) from its most recent integrated resource plan, if applicable.

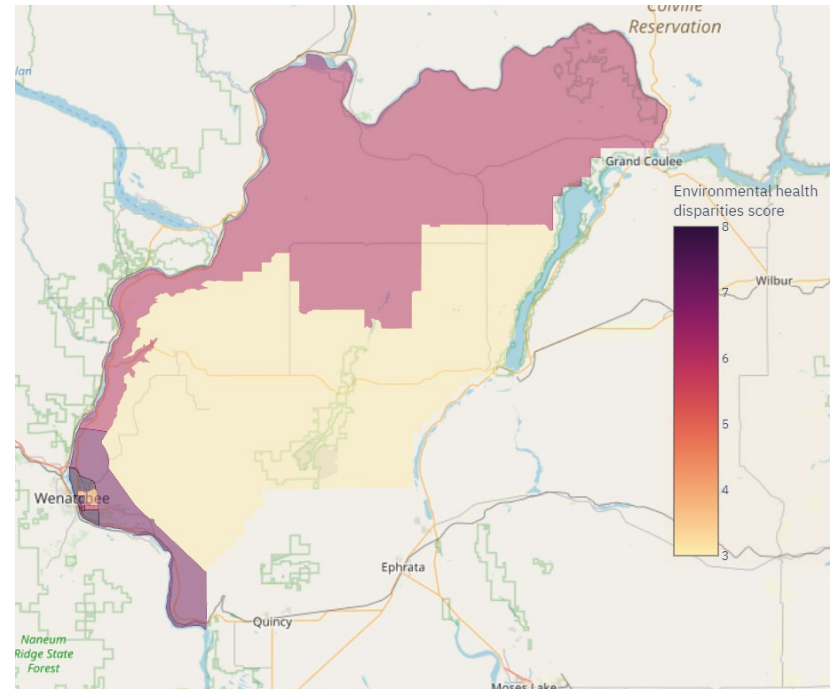
(d) Describe how the utility intends to reduce risks to highly impacted communities and vulnerable populations associated with the transition to clean energy.

HIGHLY IMPACTED COMMUNITIES

According to the Department of Health's Environmental Health Disparities map, the environmental health disparities score does not exceed 8 in any part of Douglas county. There is one census tract that is designated as a highly impacted community in Douglas PUD's service territory because of the presence of tribal members. However, we are not aware of any tribal presence in that area. The Colville reservation borders that census tract, but they are separated by the Columbia river. We will investigate with the Dept. of Commerce to determine whether this is a data anomaly.

PUBLIC INPUT

A public hearing to identify vulnerable populations in accordance to the Clean Energy Implementation Plan was held November 22, 2021 during the PUD Commission Meeting. No public comment was received at the hearing.



VULNERABLE COMMUNITIES

Based on RCW 19.405.020 (40) definition and through public input, vulnerable populations identified are:

- High energy burden customers (~700 households)
- Senior citizens who are potentially on a fixed income (~6000 customers)
- Customers with limited English language skills

Customers who live in RVs/vans for whom utility bills are included in their rents were also identified as vulnerable. However, this population is considered outside the scope of Douglas PUD's service since they cannot be served directly with programs. They would, however, benefit indirectly from Douglas PUD's low rates and programs.

CUSTOMER BENEFIT INDICATORS

The main customer benefit indicator is the reduction of energy burden – this will be captured by quantifying the impact of Douglas PUD's programs on customer energy bills.

Since Douglas PUD should aim to target new programs at high energy burden and fixed income customers, it is

forecasted that 50-60% of the benefits of the residential energy efficiency programs should flow to vulnerable and highly impacted communities.

RISK REDUCTION

Through the development of this CEIP, Douglas PUD has identified that increasing utility bills are the main risk to vulnerable communities associated with the clean energy transition.

Douglas PUD will mitigate this risk using the following strategies:

- Continue its historical tradition of maintaining low rates and continue to assess the rate impacts of clean energy actions.
- Implement energy efficiency and energy assistance programs that make sense for Douglas County residents and are targeted towards customers who need it the most.